

REMARKS

Reconsideration and allowance of the present application are respectfully requested. Claims 1-13 remain pending. New claims 14-16 have been added.

Claim 14 is supported by originally filed claim 8. New claims 15-16 are supported by, for example, specification page 9, second full paragraph and specification page 10, last paragraph (see Verified English Translation filed August 2, 2006).

On page 2 of the Office Action, in numbered paragraph 1, claims 4-13 are objected to as being of improper form. By the foregoing Amendment, formalities of claims 4-13 have been addressed, including the claim dependency structure, such that withdrawal of this objection is requested.

In numbered paragraph 2 on page 2, claims 1-3 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,203,999 (Hugues). On page 3, in numbered paragraph 7, claims 1-3 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,312,551 (Perron et al).

The foregoing rejections are respectfully traversed, as the Hugues and Perron patents relied upon by the Examiner, fail to teach or suggest all features recited in Applicant's independent claim 1. For example, this claim recites a water treatment arrangement which includes, among other features, a separation device for an air-mud-water mixture surrounded at least in areas by a water tank for cleaned water.

Referring to Applicant's exemplary Figure 1, a water treatment arrangement 1 includes a separation device 2 and a water tank 8. The separation device 2, includes an inlet 3 for receiving a mud-water mixture, which has been entrained with intaken air. The entrained mud-water mixture sprays against a baffle plate 4 and

settles on the bottom of the separation device 2 in mud reservoir 5. An air flow continues on by way of outlet opening 6 and an outlet 17 to a vacuum pump 30. Compressed air mixed with water drops travels via inflow opening 9 in the water tank 8 into a section of the water tank 8 which functions as a cyclone 18. Water drops entrained within the air are separated into the water tank 8, and the resulting air flows via output opening 10 to an outflow opening 7 of the separation device 2, and onto an outlet 16.

Thus, in the exemplary Figure 1 embodiment, the separation device 2 and the water tank 8 form a structural unit, and the separation device 2 is surrounded at least in areas by the water tank 8 for cleaned water.

Such features are broadly encompassed by Applicant's independent claim 1 which recites that a separation device and water tank form a structural unit, and that the separation device for an air-mud-water mixture is surrounded at least in areas by the water tank for the cleaned water. Such features are neither taught nor suggested by the Hugues and Perron patents relied upon by the Examiner.

In rejecting claim 1 over the Hugues patent, the Examiner asserts on page 2 of the Office Action that the Hugues patent discloses a bowl 2 and particle collector 4 (Figure 1) which constitute a separation device, and a casing 1 which constitutes a cleaned liquid tank. To the contrary, the Hugues patent is directed to a centrifugal oil filter, wherein a "casing 1" includes an output duct 5. As described in the sentence bridging columns 2-3 of the Hugues patent, oil film traveling to the top of a rotatable bowl 2 as it rotates overflows from the bowl into the casing 1, and then flows out of the casing via the outlet duct 5 at the bottom. The casing 1 is not a "water tank" as presently claimed. The casing 1 of the Hugues patent at best defines a flow path.

Moreover, the casing 1 serves as a flow path or conduit for oil, not water, as presently claimed. The casing 1 of the Hugues patent certainly does not constitute a water tank for "cleaned water" as claimed, as no such cleaning process as discussed above, is performed by the Hugues patent.

The Hugues patent therefore teaches away from the casing 1 serving as any kind of tank. This patent does not describe any kind of storage of water within the casing 1. Were duct 5 of the Hugues patent to be closed or substantially reduced in cross-sectional size to allow for a "tank" function to be performed, any oil accumulated would flow back through duct 4a into bowl 2 at which point the bowl 2 and the area surrounded by casing 1 would collectively constitute "the tank"; in such a case, there would be no distinguishable "separation device" as presently claimed.

Thus, the Hugues patent fails to teach or suggest Applicant's claim 1 combination which includes a distinct "separation device" for an air-mud-water mixture, and a "water tank" for "cleaned water". Claim 1 is therefore patentable over the Hugues patent. Applicant's claim 1 combination provides significant advantages, including without limitation, an ability to provide a compact arrangement of a separating device within a water tank, wherein cleaned water can be stored for eventual recycling within areas surrounding the separation device.

Claim 1 is also allowable over the Perron patent. In rejecting claim 1 on page 3 of the Office Action, the Examiner asserts that the Perron patent includes "a first wall partition 56", a "superior collar 58" and an "inferior collar 60" which constitute Applicant's presently claimed separation device. The Examiner also asserts that the Perron patent discloses a "bottom 69" and "stationary shield 74" which constitute Applicant's presently claimed water tank. The Examiner relies on column 2, lines 50-

65 of the Perron patent as disclosing a "separation device" and "water tank" as a structural unit wherein the separation device for an air-mud-water mixture is surrounded at least in areas by a water tank for cleaned water, as presently claimed.

To the contrary, the Perron patent discloses an opening 68 in the bottom 69 and a pipe 70 through which water drains from the interior of the shield 74 as described at column 2, lines 65-68. As such, the shield 74 and bottom 69 do not constitute a "tank" as presently claimed. In addition, a coupling 80 extends through a hole in the bottom 69 (see Figure 1) and engages the bottom wall 66 of the centrifuge 52. Because the water would drain through the hole in the bottom 69, the centrifuge 52 is not surrounded in areas by a water tank as presently claimed, but rather by the shield 74, as described in the Perron patent.

Figure 1 of the Perron patent does appear to show that some fluid may collect in the bottom 69. However, the bottom 69 and shield 74 do not cooperate to form "a water tank" as presently claimed because any such fluid accumulation only occurs beneath the centrifuge 52. Any rise of water above the edge of bottom 69 would simply flow out of the opening 68 (see column 2, lines 54-56). As such, the bottom 69 cannot be considered to form a portion of a "structural unit" as presently recited in Applicant's claim 1, wherein an air-mud-water structure is surrounded at least in areas by a water tank for cleaned water. The bottom 69 simply does not "surround" the centrifuge 52.

As such, the Perron patent neither discloses nor suggests a "water tank" as claimed, or the structural unit of a separation device and a water tank as presently claimed.

Claim 1 is therefore allowable over the Perron patent.

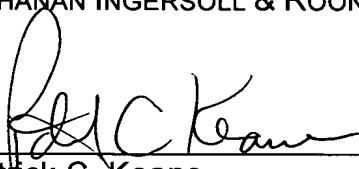
Claims 2-14 depend from claim 1 and recite additional advantageous features which further distinguish over the Hugues and Perron patents. In addition, newly proposed claims 15 and 16 recite features similar to those recited in claim 1, and are allowable over the Hugues and Perron patents for at least the reasons already discussed.

All objections and rejections having been addressed, Applicants respectfully request entry of this Amendment, and submit that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited.

Respectfully submitted,

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Date: August 13, 2008

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